Table S-1. Summary of Environmental Effects, Mitigation, and Levels of Significance[1,2]

Resources	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Climate				
Effects	Climatic conditions are not expected to change in the near future.	No effect. **NE**	No effect. **NE**	No effect. **NE**
Mitigation	Not applicable.	No mitigation required. **NE**	No mitigation required. **NE**	No mitigation required. **NE**
Geology and Seismicity				
Effects	Geologic and seismic patterns are expected to remain the same in the future.	No effect. **NE**	No effect. **NE**	No effect. **NE**
Mitigation	Not applicable.	No mitigation required. **NE**	No mitigation required. **NE**	No mitigation required. **NE**
Fisheries				
Temporary Effects	Not applicable.	Temporary disturbance to fisheries during construction of breaches and realignment of Hammond Slough. **LS**	Temporary disturbance to fisheries during construction of breaches and realignment of Hammond Slough. **LS**	Temporary disturbance to fisheries during construction of breaches and realignment of Hammond Slough. **LS**
Mitigation	Not applicable.	Use best management practices to minimize disturbance. No mitigation required. **LS**	Use best management practices to minimize disturbance. No mitigation required. **LS**	Use best management practices to minimize disturbance. No mitigation required. **LS**
Permanent Effects	Fish populations are not expected to change in the future.	Increase in spawning and rearing habitat. **B**	Increase in spawning and rearing habitat. **B**	Increase in spawning and rearing habitat. **B**
Mitigation	Not applicable.	No mitigation required. **B**	No mitigation required. **B**	No mitigation required. **B**

Resource	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Noise				
Temporary Effects	Not applicable.	Temporary increase in noise levels during construction. **LS**	Temporary increase in noise levels during construction. **LS**	Temporary increase in noise levels during construction. **LS**
Mitigation	Not applicable.	Use best management practices to reduce the noise levels caused by construction equipment. No mitigation required. **LS**	Use best management practices to reduce the noise levels caused by construction equipment. No mitigation required. **LS**	Use best management practices to reduce the noise levels caused by construction equipment. No mitigation required. **LS**
Permanent Effects	Sources of noise and noise levels are expected to remain the same in the future.	No effect. **NE**	No effect. **NE**	No effect. **NE**
Mitigation	Not applicable.	No mitigation required. **NE**	No mitigation required. **NE**	No mitigation required. **NE**
Recreation				
Temporary Effects	Not applicable.	Increased travel time to recreation areas. **LS**	Increased travel time to recreation areas. **LS**	Increased travel time to recreation areas. **LS**
Mitigation	Not applicable.	Use best management practices to reduce traffic delays and congestion. **LS**	Use best management practices to reduce traffic delays and congestion. **LS**	Use best management practices to reduce traffic delays and congestion. **LS**
Permanent Effects	Lake-oriented recreation and tourism would continue to draw tourists to the Clear Lake area.	Provide additional days of higher quality recreational experience by helping to reduce algal blooms that are a nuisance to fisherman and other recreationists. Offer incidental recreational opportunities such as hiking and bird watching. In addition, provide educational and information centers access to environmental and recreational values provided by the project. **B**	Provide additional days of higher quality recreational experience by helping to reduce algal blooms that are a nuisance to fisherman and other recreationists. Offer incidental recreational opportunities such as hiking and bird watching. In addition, provide educational and information centers access to environmental and recreational values provided by the project. **B**	Provide additional days of higher quality recreational experience by helping to reduce algal blooms that are a nuisance to fisherman and other recreationists. . Offer incidental recreational opportunities such as hiking and bird watching. In addition, provide educational and information centers access to environmental and recreational values provided by the project. **B**
Mitigation	Not applicable.	No mitigation required. **B**	No mitigation required. **B**	No mitigation required. **B**

Resource	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Visual Resources/Esthetics				
Temporary Effects	Not applicable.	The presence of construction equipment would temporarily affect esthetics in the study area. **LS**	The presence of construction equipment would temporarily affect esthetics in the study area. **LS**	The presence of construction equipment would temporarily affect esthetics in the study area. **LS**
Mitigation	Not applicable.	No mitigation required. **LS**	No mitigation required. **LS**	No mitigation required. **LS**
Permanent Effects	Since there would be no change in current land use, esthetics in the study area would be expected to remain the same.	Esthetics would be improved in the study area due to decrease in algal bloom frequency and intensity, as well as change from agriculture to natural habitat **B**	Esthetics would be improved in the study area due to decrease in algal bloom frequency and intensity, as well as change from agriculture to natural habitat **B**	Esthetics would be improved in the study area due to decrease in algal bloom frequency and intensity, as well as change from agriculture to natural habitat **B**
Mitigation	Not applicable.	No mitigation required. **B**	No mitigation required. **B**	No mitigation required. **B**
Hazardous, Toxic, and Radiological Waste (HTRW)				
Effects	No HTRW sites are present in the study area.	No HTRW sites are present in the study area. **NE**	No HTRW sites are present in the study area. **NE**	No HTRW sites are present in the study area. **NE**
Mitigation	Not applicable.	No mitigation required. **NE**	No mitigation required. **NE**	No mitigation required. **NE**

Resource	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Land Use				
Temporary Effects	Not applicable.	No effect on designated land use. **NE**	No effect on designated land use. **NE**	No effect on designated land use. **NE**
Mitigation	Not applicable.	No mitigation required. **NE**	No mitigation required. **NE**	No mitigation required. **NE**
Permanent Effects	The land in the study area would retain its current land use designations of agriculture and residential.	Land use would change from agriculture to open space. Approximately 1,387 acres of prime and unique farmland would be converted to open water, wetland, riparian, and upland habitat. **S**	Land use would change from agriculture to open space. Approximately 965 acres of prime and unique farmland would be converted to open water, wetland, and riparian habitat. **S**	Land use would change from agriculture to open space. Approximately 775 acres of prime and unique farmland would be converted to open water, wetland, and riparian habitat. **S**
Mitigation	Not applicable.	Land would be rezoned as open space. Potential mitigation measures considered during PED. **S**	Land would be rezoned as open space. Potential mitigation measures considered during PED. **S**	Land would be rezoned as open space. Potential mitigation measures considered during PED. **S**
Topography and Soils				
Temporary Effects	Not applicable.	Temporary soil disturbance in the area during construction. **LS**	Temporary soil disturbance in the area during construction. **LS**	Temporary soil disturbance in the area during construction. **LS**
Mitigation	Not applicable.	Use of best management practices to minimize the loss of soil due to erosion. No mitigation required. **LS**	Use of best management practices to minimize the loss of soil due to erosion. No mitigation required. **LS**	Use of best management practices to minimize the loss of soil due to erosion. No mitigation required. **LS**
Permanent Effects	Soil erosion from disturbed areas is expected to increase in the future due to continued agriculture and development.	No effect. **NE**	No effect. **NE**	No effect. **NE**
Mitigation	Not applicable.	No mitigation required. **NE**	No mitigation required. **NE**	No mitigation required. **NE**

Resource	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Vegetation and Wildlife				
Temporary Effects	Not applicable.	Wildlife would move out of the area during construction, but would return after construction was completed. **LS**	Wildlife would move out of the area during construction, but would return after construction was completed. L**S**	Wildlife would move out of the area during construction, but would return after construction was completed. L**S**
Mitigation	Not applicable.	No mitigation required. **LS**	No mitigation required. **LS**	No mitigation required. **LS**
Permanent Effects	Most of the vegetation in the study area would continue to be associated with agriculture, and wildlife are not expected to change significantly from the existing conditions.	Loss of a maximum of 24 acres of riparian habitat and 40 acres of existing wetland habitat. **S** The restoration of 765 acres of wetland, 230 acres of riparian, 405 acres of open water, and 250 acres of upland habitat. Creation of a mosaic of habitat types for wildlife. **B**	Loss of a maximum of 24 acres of riparian habitat and 40 acres of existing wetland habitat. **S** The restoration of 587 acres of wetland, 158 acres of riparian, and 382 acres of open water. Creation of a mosaic of habitat types for wildlife. **B**	Loss of a maximum of 24 acres of riparian habitat and 40 acres of existing wetland habitat. **S** The restoration of 439 acres of wetland, 128 acres of riparian, and 323 acres of open water. Creation of a mosaic of habitat types for wildlife. **B**
Mitigation	Not applicable.	A net gain of approximately 725 acres of wetland, 206 acres of riparian, 405 acres of open water, and 250 acres of upland habitat would be restored. As a result, no mitigation required. **B**	A net gain of approximately 547 acres of wetland, 134 acres of riparian, and 382 acres of open water would be restored. As a result, no mitigation required. **B**	A net gain of approximately 399 acres of wetland, 104 acres of riparian, and 323 acres of open water would be restored. As a result, no mitigation required. **B**

Resource	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Special Status Species				
Temporary Effects	Not applicable.	California red-legged frog, bald eagle, and western yellow-billed cuckoo could be temporarily disturbed. **S**	California red-legged frog, bald eagle, and western yellow-billed cuckoo could be temporarily disturbed. **S**	California red-legged frog, bald eagle, and western yellow-billed cuckoo could be temporarily disturbed. **S**
Mitigation	Not applicable.	Surveys would be done prior to construction to determine the presence or absence of special status species in the project area, and specific avoidance measures would be implemented, if necessary. **LS**	Surveys would be done prior to construction to determine the presence or absence of special status species in the project area, and specific avoidance measures would be implemented, if necessary. **LS**	Surveys would be done prior to construction to determine the presence or absence of special status species in the project area, and specific avoidance measures would be implemented, if necessary. **LS**
Permanent Effects	Habitat for special status species is expected to remain limited.	High quality habitat for the frog, as well as foraging and nesting habitat for the birds, would significantly increase. **B**	High quality habitat for the frog, as well as foraging and nesting habitat for the birds, would significantly increase. **B**	High quality habitat for the frog, as well as foraging and nesting habitat for the birds, would significantly increase. **B**
Mitigation	Not applicable.	No mitigation required. **B**	No mitigation required. **B**	No mitigation required. **B**

Water Quality				
Temporary Effects	Not applicable.	Exposure of bare soil areas during storms, and construction of the levee breaches could increase erosion, turbidity, and sedimentation in waterways. **S**	Exposure of bare soil areas during storms, and construction of the levee breaches could increase erosion, turbidity, and sedimentation in waterways. **S**	Exposure of bare soil areas during storms, and construction of the levee breaches could increase erosion, turbidity, and sedimentation in waterways. **S**
Mitigation	Not applicable.	Use best management practices to prevent debris and/or pollutants from entering the water. Comply with CWA Section 404 and 401, and NPDES. No mitigation required. **LS**	Use best management practices to prevent debris and/or pollutants from entering the water. Comply with CWA Section 404 and 401, and NPDES. No mitigation required. **LS**	Use best management practices to prevent debris and/or pollutants from entering the water. Comply with CWA Section 404 and 401, and NPDES. No mitigation required. **LS**
Permanent Effects	Water quality will continue to be impaired by frequent algal blooms due to excess sediments and nutrients from agriculture practices.	Wetlands would retain much of the phosphorus and sediments entering Clear Lake, reducing algal blooms and increasing water quality of Clear Lake. **B**	Wetlands would retain much of the phosphorus and sediments entering Clear Lake, reducing algal blooms and increasing water quality of Clear Lake. **B**	Wetlands would retain much of the phosphorus and sediments entering Clear Lake, reducing algal blooms and increasing water quality of Clear Lake. **B**
Mitigation	Not applicable.	No mitigation required. **B**	No mitigation required. **B**	No mitigation required. **B**

Resource	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Air Quality				
Temporary Effects	Not applicable.	Construction would result in short-term air pollution emissions caused by the construction vehicles. **LS**	Construction would result in short-term air pollution emissions caused by the construction vehicles. **LS**	Construction would result in short-term air pollution emissions caused by the construction vehicles. **S**
Mitigation	Not applicable.	Use best management practices to reduce the amount of emissions and particulate matter in the air due to construction equipment. No mitigation required. **LS**	Use best management practices to reduce the amount of emissions and particulate matter in the air due to construction equipment. No mitigation required. **LS**	Use best management practices to reduce the amount of emissions and particulate matter in the air due to construction equipment. **S**
Permanent Effects	Air quality in the study area would continue to be affected by agricultural, industrial, and other human activities. Motor vehicles would continue to be the greatest source of organic gases, carbon monoxide, and nitrogen oxides.	No effect. **NE**	No effect. **NE**	No effect. **NE**
Mitigation	Not applicable.	No mitigation required. **NE**	No mitigation required. **NE**	No mitigation required. **NE**
Public Health				
Temporary Effects	Not applicable.	Interruption of mosquito abatement program. **LS**	Interruption of mosquito abatement program. **LS**	No effect. **NE**
Mitigation	Not applicable.	No mitigation required. **LS**	No mitigation required. **LS**	No effect. **NE**
Permanent Effects	Lake County would continue its mosquito abatement and monitoring program without interruption.	The addition of physical and biological control of mosquitoes provided by naturally functioning wetlands. **B**	The addition of physical and biological control of mosquitoes provided by naturally functioning wetlands. **B**	The addition of physical and biological control of mosquitoes provided by naturally functioning wetlands. **B**
Mitigation	Not applicable.	No mitigation required. **B**	No mitigation required. **B**	No mitigation required. **B**

Resource	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Socioeconomics				
Temporary Effects	Not applicable.	A temporary disruption to emergency services could occur. **S**	A temporary disruption to emergency services could occur. **S**	A temporary disruption to emergency services could occur. **S**
Mitigation	Not applicable.	Best management practices would be implemented to reduce disruption to emergency services. **S**	Best management practices would be implemented to reduce disruption to emergency services. **S**	Best management practices would be implemented to reduce disruption to emergency services. **S**
Permanent Effects	The population and employment trends would continue as indicated in the County General Plan and residents would remain in the study area.	Residents in the project area would be relocated. There would be loss of a few jobs in the area. **LS**	Residents in the project area would be relocated. There would be loss of a few jobs in the area. **LS**	Residents in the project area would be relocated. There would be loss of a few jobs in the area. **LS**
Mitigation	Not applicable.	Residents would be compensated for relocation. **LS**	Residents would be compensated for relocation. **LS**	Residents would be compensated for relocation. **LS**
Traffic and Circulation				
Temporary Effects	Not applicable.	Temporary increase in traffic volumes and travel delays associated with construction. **S**	Temporary increase in traffic volumes and travel delays associated with construction. **S**	Temporary increase in traffic volumes and travel delays associated with construction. **S**
Mitigation	Not applicable.	Use best management practices to minimize traffic delays and ensure public safety. No practical measures to mitigate for road closure for bridge construction. **S**	Use best management practices to minimize traffic delays and ensure public safety. No practical measures to mitigate for road closure for bridge construction. **S**	Use best management practices to minimize traffic delays and ensure public safety. No practical measures to mitigate for road closure for bridge construction. **S**
Permanent Effects	Traffic is expected to increase in the future.	Nice-Lucerne Cutoff Road would no longer be subject to flooding during a 100-year event. **B**	Nice-Lucerne Cutoff Road would no longer be subject to flooding during a 100-year event. **B**	Nice-Lucerne Cutoff Road would no longer be subject to flooding during a 100-year event. **B**
Mitigation	Not applicable.	No mitigation required**. B**	No mitigation required**. B**	No mitigation required**. B**

Resource	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Cultural Resources				
Effects	Cultural resources would continue to be damaged or destroyed through natural processes or vandalism.	Physical destruction or alteration of cultural resources could occur. **S**	Physical destruction or alteration of cultural resources could occur. **S**	Physical destruction or alteration of cultural resources could occur. **S**
Mitigation	Not applicable.	Surveys would be done prior to construction to determine presence of cultural resources. All practical measures such as avoidance or preservation would be instituted where possible. **LS**	Surveys would be done prior to construction to determine presence of cultural resources. All practical measures such as avoidance or preservation would be instituted where possible. **LS**	Surveys would be done prior to construction to determine presence of cultural resources. All practical measures such as avoidance or preservation would be instituted where possible. **LS**

[1] Levels of significance are provided before and after mitigation for each effect.

[2] **NE** = No effect
B = Beneficial effect
LS = Less-than-significant effect
S = Significant effect